D. LUKTON

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RAW SEQUENCE LISTING   DATE: 05/18/2000
PATENT APPLICATION: US/09/341,590   TIME: 14:11:46

Input Set : A:\Larsen.app
Output Set: N:\CRF3\05182000\I341590.raw

```
      3 <110> APPLICANT: Larsen, Bjarne Due
      5 <120> TITLE OF INVENTION: PHARMACOLOGICALLY ACTIVE PEPTIDE CONJUGATES HAVING A
      6       REDUCED TENDENCY TOWARDS ENZYMATIC HYDROLYSIS
      8 <130> FILE REFERENCE: PPT-20479-US
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/341,590
C--> 11 <141> CURRENT FILING DATE: 1999-07-03
     13 <150> PRIOR APPLICATION NUMBER: DK 0317/98
     14 <151> PRIOR FILING DATE: 1998-03-09
     16 <160> NUMBER OF SEQ ID NOS: 121
     18 <170> SOFTWARE: PatentIn Ver. 2.0
     20 <210> SEQ ID NO: 1
     21 <211> LENGTH: 5
     22 <212> TYPE: PRT
     23 <213> ORGANISM: Artificial Sequence
     25 <220> FEATURE:
     26 <223> OTHER INFORMATION: Description of Artificial Sequence: DPLCE
     28 <220> FEATURE:
     29 <221> NAME/KEY: MOD_RES
     30 <222> LOCATION: (2)
     31 <223> OTHER INFORMATION: D-Pen
     33 <400> SEQUENCE: 1
     34 Tyr Xaa Gly Phe Cys
     35   1               5
     38 <210> SEQ ID NO: 2
     39 <211> LENGTH: 8
     40 <212> TYPE: PRT
     41 <213> ORGANISM: Artificial Sequence
     43 <220> FEATURE:
     44 <223> OTHER INFORMATION: Description of Artificial Sequence: DPLCE-Arg-Pro-Ala
     46 <220> FEATURE:
     47 <221> NAME/KEY: MOD_RES
     48 <222> LOCATION: (2)
     49 <223> OTHER INFORMATION: D-Pen
     51 <400> SEQUENCE: 2
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     53   1               5
     56 <210> SEQ ID NO: 3
     57 <211> LENGTH: 6
     58 <212> TYPE: PRT
     59 <213> ORGANISM: Artificial Sequence
     61 <220> FEATURE:
     62 <223> OTHER INFORMATION: Description of Artificial Sequence: DPDPE-Phe
     64 <220> FEATURE:
     65 <221> NAME/KEY: MOD_RES
     66 <222> LOCATION: (2)
     67 <223> OTHER INFORMATION: D-Pen
     69 <220> FEATURE:
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      70 <221> NAME/KEY: MOD_RES
      71 <222> LOCATION: (5)
      72 <223> OTHER INFORMATION: D-Pen
      74 <400> SEQUENCE: 3
      75 Tyr Xaa Gly Phe Xaa Phe
      76   1               5
      79 <210> SEQ ID NO: 4
      80 <211> LENGTH: 6
      81 <212> TYPE: PRT
      82 <213> ORGANISM: Artificial Sequence
      84 <220> FEATURE:
      85 <223> OTHER INFORMATION: Description of Artificial Sequence: DPLCE-Phe
      87 <220> FEATURE:
      88 <221> NAME/KEY: MOD_RES
      89 <222> LOCATION: (2)
      90 <223> OTHER INFORMATION: D-Pen
      92 <400> SEQUENCE: 4
      93 Tyr Xaa Gly Phe Cys Phe
      94   1               5
      97 <210> SEQ ID NO: 5
      98 <211> LENGTH: 7
      99 <212> TYPE: PRT
     100 <213> ORGANISM: Artificial Sequence
     102 <220> FEATURE:
     103 <223> OTHER INFORMATION: Description of Artificial Sequence: DPDPE-Arg-Gly
     105 <220> FEATURE:
     106 <221> NAME/KEY: MOD_RES
     107 <222> LOCATION: (2)
     108 <223> OTHER INFORMATION: D-Pen
     110 <220> FEATURE:
     111 <221> NAME/KEY: MOD_RES
     112 <222> LOCATION: (5)
     113 <223> OTHER INFORMATION: D-Pen
     115 <400> SEQUENCE: 5
     116 Tyr Xaa Gly Phe Xaa Arg Gly
     117   1               5
     120 <210> SEQ ID NO: 6
     121 <211> LENGTH: 7
     122 <212> TYPE: PRT
     123 <213> ORGANISM: Artificial Sequence
     125 <220> FEATURE:
     126 <223> OTHER INFORMATION: Description of Artificial Sequence: DPLCE-Arg-Gly
     128 <220> FEATURE:
     129 <221> NAME/KEY: MOD_RES
     130 <222> LOCATION: (2)
     131 <223> OTHER INFORMATION: D-Pen
     133 <400> SEQUENCE: 6
     134 Tyr Xaa Gly Phe Cys Arg Gly
     135   1               5
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138 <210> SEQ ID NO: 7
139 <211> LENGTH: 7
140 <212> TYPE: PRT
141 <213> ORGANISM: Artificial Sequence
143 <220> FEATURE:
144 <223> OTHER INFORMATION: Description of Artificial Sequence: DPDPE-Phe-Ala
146 <220> FEATURE:
147 <221> NAME/KEY: MOD_RES
148 <222> LOCATION: (2)
149 <223> OTHER INFORMATION: D-Pen
151 <220> FEATURE:
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153 <222> LOCATION: (5)
154 <223> OTHER INFORMATION: D-Pen
156 <400> SEQUENCE: 7
157 Tyr Xaa Gly Phe Xaa Phe Ala
158   1   5
161 <210> SEQ ID NO: 8
162 <211> LENGTH: 15
163 <212> TYPE: PRT
164 <213> ORGANISM: Artificial Sequence
166 <220> FEATURE:
167 <223> OTHER INFORMATION: Description of Artificial Sequence: DSIP-(Lys-Glu)3
169 <400> SEQUENCE: 8
170 Trp Ala Gly Gly Asp Ala Ser Gly Glu Lys Glu Lys Glu Lys Glu
171   1   5   10   15
174 <210> SEQ ID NO: 9
175 <211> LENGTH: 15
176 <212> TYPE: PRT
177 <213> ORGANISM: Artificial Sequence
179 <220> FEATURE:
180 <223> OTHER INFORMATION: Description of Artificial Sequence: DSIP-(Glu)6
182 <400> SEQUENCE: 9
183 Trp Ala Gly Gly Asp Ala Ser Gly Glu Glu Glu Glu Glu Glu Glu
184   1   5   10   15
187 <210> SEQ ID NO: 10
188 <211> LENGTH: 11
189 <212> TYPE: PRT
190 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: Description of Artificial Sequence: Leu-enkephalin-(Glu)6
195 <400> SEQUENCE: 10
196 Tyr Gly Gly Phe Leu Glu Glu Glu Glu Glu Glu
197   1   5   10
200 <210> SEQ ID NO: 11
201 <211> LENGTH: 11
202 <212> TYPE: PRT
203 <213> ORGANISM: Artificial Sequence
205 <220> FEATURE:

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206 <223> OTHER INFORMATION: Description of Artificial Sequence: Leu-enkephalin-(Lys)6
208 <400> SEQUENCE: 11
209 Tyr Gly Gly Phe Leu Lys Lys Lys Lys Lys Lys
210   1   5   10
213 <210> SEQ ID NO: 12
214 <211> LENGTH: 5
215 <212> TYPE: PRT
216 <213> ORGANISM: Homo sapiens
218 <400> SEQUENCE: 12
219 Tyr Gly Gly Phe Leu
220   1   5
223 <210> SEQ ID NO: 13
224 <211> LENGTH: 9
225 <212> TYPE: PRT
226 <213> ORGANISM: Homo sapiens
228 <400> SEQUENCE: 13
229 Cys Tyr Ile Gln Asn Cys Pro Leu Gly
230   1   5
233 <210> SEQ ID NO: 14
234 <211> LENGTH: 14
235 <212> TYPE: PRT
236 <213> ORGANISM: Artificial Sequence
238 <220> FEATURE:
239 <223> OTHER INFORMATION: Description of Artificial Sequence: AF 12505
241 <400> SEQUENCE: 14
242 Ile Glu Gly Pro Thr Leu Arg Gln Trp Leu Ala Ala Arg Ala
243   1   5   10
246 <210> SEQ ID NO: 15
247 <211> LENGTH: 14
248 <212> TYPE: PRT
249 <213> ORGANISM: Homo sapiens
251 <220> FEATURE:
252 <223> OTHER INFORMATION: insulin-like growth factor I (57-70)
254 <400> SEQUENCE: 15
255 Ala Leu Leu Glu Thr Tyr Cys Ala Thr Pro Ala Lys Ser Glu
256   1   5   10
259 <210> SEQ ID NO: 16
260 <211> LENGTH: 12
261 <212> TYPE: PRT
262 <213> ORGANISM: Homo sapiens
264 <220> FEATURE:
265 <223> OTHER INFORMATION: insulin-like growth factor I (30-41)
267 <400> SEQUENCE: 16
268 Gly Tyr Gly Ser Ser Ser Arg Arg Ala Pro Gln Thr
269   1   5   10
272 <210> SEQ ID NO: 17
273 <211> LENGTH: 18
274 <212> TYPE: PRT
275 <213> ORGANISM: Homo sapiens

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277 <220> FEATURE:
278 <223> OTHER INFORMATION: insulin-like growth factor I (24-41)
280 <400> SEQUENCE: 17
281 Tyr Phe Asn Lys Pro Thr Gly Tyr Gly Ser Ser Ser Arg Arg Ala Pro
282   1           5               10              15
284 Gln Thr
288 <210> SEQ ID NO: 18
289 <211> LENGTH: 8
290 <212> TYPE: PRT
291 <213> ORGANISM: Homo sapiens
293 <220> FEATURE:
294 <223> OTHER INFORMATION: insulin-like growth factor II (33-40)
296 <400> SEQUENCE: 18
297 Ser Arg Val Ser Arg Arg Ser Arg
298   1           5
301 <210> SEQ ID NO: 19
302 <211> LENGTH: 9
303 <212> TYPE: PRT
304 <213> ORGANISM: Artificial Sequence
306 <220> FEATURE:
307 <223> OTHER INFORMATION: Description of Artificial Sequence: insulin-like
308       growth [tyro] factor II (33-40)
310 <400> SEQUENCE: 19
311 Tyr Ser Arg Val Ser Arg Arg Ser Arg
312   1           5
315 <210> SEQ ID NO: 20
316 <211> LENGTH: 16
317 <212> TYPE: PRT
318 <213> ORGANISM: Homo sapiens
320 <220> FEATURE:
321 <223> OTHER INFORMATION: insulin-like growth factor II (69-84)
323 <400> SEQUENCE: 20
324 Asp Val Ser Thr Pro Pro Thr Val Leu Pro Asp Asn Phe Pro Arg Tyr
325   1           5               10              15
328 <210> SEQ ID NO: 21
329 <211> LENGTH: 6
330 <212> TYPE: PRT
331 <213> ORGANISM: Artificial Sequence
333 <220> FEATURE:
334 <223> OTHER INFORMATION: Description of Artificial Sequence: GHRP-6
336 <220> FEATURE:
337 <221> NAME/KEY: MOD_RES
338 <222> LOCATION: (2)
339 <223> OTHER INFORMATION: D-Trp
341 <220> FEATURE:
342 <221> NAME/KEY: MOD_RES
343 <222> LOCATION: (5)
344 <223> OTHER INFORMATION: D-Phe
346 <400> SEQUENCE: 21
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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```
L:10  M:270 C: Current Application Number differs, Replaced Application Number
L:11  M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:34  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:52  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:75  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:93  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:116 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:134 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:347 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:466 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:487 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:530 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:553 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34
L:615 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35
L:720 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42
L:764 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:795 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47
L:813 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48
L:873 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51
L:956 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:57
L:956 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:57
L:956 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:57
L:974 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:58
L:974 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:58
L:974 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:58
L:992 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:59
L:992 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:59
L:992 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:59
L:1010 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:60
L:1010 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:60
L:1010 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:60
L:1028 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:61
L:1028 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:61
L:1028 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:61
L:1059 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:63
L:1059 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:63
L:1059 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:63
L:1077 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:64
L:1077 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:64
L:1077 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:64
L:1095 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:65
L:1095 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:65
L:1095 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:65
L:1113 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:66
L:1113 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:66
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L:1113 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:66
L:1131 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:67
L:1131 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:67
L:1131 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:67
L:1149 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:68
L:1149 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:68
L:1149 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:68
L:1167 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:69
L:1167 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:69
L:1167 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:69
L:1185 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:70
L:1185 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:70
L:1185 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:70
L:1203 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:71
L:1203 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:71
L:1203 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:71
L:1221 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:72
L:1221 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:72
L:1221 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:72
L:1239 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:73
L:1239 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:73
L:1239 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:73
L:1257 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:74
L:1257 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:74
L:1257 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:74
L:1275 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:75
L:1275 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:75
L:1275 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:75
L:1293 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:76
L:1293 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:76
L:1293 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:76
L:1311 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:77
L:1311 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:77
L:1311 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:77
L:1329 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:78
L:1329 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:78
L:1329 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:78
L:1347 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:79
L:1347 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:79
L:1347 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:79
L:1365 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:80
L:1365 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:80
L:1365 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:80
L:1383 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:81
L:1383 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:81
L:1383 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:81
L:1401 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:82
L:1401 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:82
L:1401 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:82
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L:1419 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:83
L:1595 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93
L:1621 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:94
L:1624 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:94
L:1647 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95
L:1650 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95
L:1678 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:96
L:1737 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:100
L:1830 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106
L:1848 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:107
L:1866 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:108
L:1964 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:114
L:1982 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:115
```